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ElectroWeak Corrections to Dark Matter Indirect Detection

Wednesday 1 June 2011 17:00 (15 minutes)

The computation of the energy spectra of Standard Model particles originated from the annihilation/decay of dark matter particles is of primary importance in indirect searches of dark matter. In this talk we show how the inclusion of electroweak corrections significantly alter such spectra when the mass of dark matter particles is larger than the electroweak scale: soft electroweak gauge bosons are copiously radiated opening new channels in the final states which otherwise would be forbidden. All stable particles are therefore present in the final spectrum, independently of the primary channel of dark matter annihilation/decay. Such corrections are model independent.

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